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Buhlow Lake Aquatic Vegetation Control Plan – 2013

LDWF, Inland Fisheries

Owned by the city of Pineville.

Waterbody type:

Manmade Impoundment

Age and condition of control structure:

Completed in 1956 – condition is functional. The lift gate was damaged by vandals in 2010 and the city of Pineville hired a contractor to make required repairs. As per verbal communication with city officials, the gate has been repaired and is in good working order.

Type of control structure:

The control structure is a Hydro Gate. It is a 36"x 36" heavy duty stainless steel slide gate. It is a self-contained wall mounted gate with a rising stem. The outflow pipe is 36" in diameter.

Water level fluctuation:

Buhlow Lake has a small watershed and water level fluctuations greater than 12 to 16 inches are rare.

Surface acres at pool stage (80 MSL) - 265 acres

Average depth – 5 feet; Maximum depth – 9 feet

Watershed ratio - 14.0: 1

Drawdown potential of structure

In the fall of 1984, the lake was drawn down to the existing creek channel. The lake has an average depth of 5 feet. This indicates the lake can be dewatered at least 5 feet below pool stage.

Waterbody Board or Lake Commission

There is no lake commission. The City of Pineville is the authority for Lake Buhlow.

Primary contact information:

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Public Works Director
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Clarence Fields
Mayor
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Pineville, LA. 71361
318-449-5650
318-442-8373 (fax)

Procedure for spillway openings –

The City of Pineville is responsible for the operation and maintenance of the structure. All lake management decisions including request to open the water control structure must be sent to the Director of Public Works for the City of Pineville. Contact information listed above.

DRAWDOWN HISTORY				
Date Opened	Date Closed	Purpose	Results	Issues
Fall 1984 (exact date unknown)	Spring 1985 (exact date unknown)	Reduce bacterial contaminants in the water	Excellent	None

What significant stakeholders use the lake?

Buhlow Lake receives significant seasonal usage by bank and boat fishermen. The City of Pineville has several official sanctioned speed boat racing events annually on the lake. It has the distinction of being the location for several world speed records. The City also holds numerous public events around the lake. These include a 4th of July celebration, fishing derbies, car shows, etc.

What are their needs and concerns? What is the history of aquatic vegetation complaints?

Historically Buhlow Lake has not had aquatic vegetation issues. Hydrilla was first documented in the lake in the fall of 2009. The City was notified, but didn't have the funding for treatment. In the fall of 2010, most of the lake was infested with Hydrilla, and the City and LDWF began receiving numerous complaints from the public. An agreement was made for treatment in the spring of 2011.

Have there been any controversial issues on the lake?

In the early 1980's, many houses in the watershed were serviced by septic tanks that were old and inefficient. High bacterial counts were found in the lake and there were occasional heavy plankton blooms during late summer. The sewer problems were corrected. The lake was drained, allowed to dry and refill. Bacteria counts were reduced and there are no currently known water quality issues.

Aquatic Vegetation Status:

As of the spring of 2011 the 265 acre lake was 90% covered with hydrilla. The lake was treated with SonarOne herbicide on March 31st. The treatment was successful in that hydrilla was in various stages of decay by July 11, 2011. Approximately 10 acres of lotus and a fringe (less than 3 acres) of water hyacinth were found in the lake during the fall of 2011.

No hydrilla regrowth was observed in the fall of 2012. No serious vegetation problems are expected for 2013. Approximately 10 acres of American lotus will need to be sprayed with a foliar herbicide in 2013.

There is a fringe of giant cutgrass around much of the lake which is beneficial in reducing shoreline erosion. There are no planned efforts to re-establish aquatic vegetation.

Limitations:

- Vegetation management efforts are not always compatible with City of Pineville priorities. For example, drawdowns may be limited due to conflicts with boat races and other events sanctioned by the City of Pineville
- 2,4-D waiver area

Past Control Measures

Year	Acres	Vegetation
2011	44	Algae
	13	Alligator weed
	13	American Lotus
	13	Water Hyacinth
	265	Hydrilla
2012	27	American Lotus

Herbicides used to treat emergent vegetation were applied at the following rates:

Glyphosate (Aquamaster, Aquastar, etc.): Used at a rate of 0.75 gallons per acre to treat alligator weed, water hyacinth and American lotus during the active growing period.

Diquat (Reward, Knockout): Used at a rate of 0.75 gallons per acre to treat alligator weed, water hyacinth, and giant and common salvinia during the slower growing period or winter months.

Surfactant is added at a rate of 1:4 (surfactant: herbicide) for all herbicides.

Triploid Grass Carp Stocking

May 11, 2012 – five hundred and thirty (530) eight to twelve inch TGC were stocked into Buhlow Lake to provide long-term control of hydrilla following the Sonar treatment.

Recommendations

Aquatic technicians will report significant changes in the status of aquatic vegetation monthly following days spraying on the reservoir. LDWF spray crews will continue spraying emergent vegetation several days per month with either glyphosate or diquat and an approved surfactant. These herbicides are applied at the rate of 0.75 gallons per acre with the surfactant applied at 0.25 gallons per acre. A diquat/glyphosate mix may be applied to giant salvinia infestations, if or when detected, at a rate of 0.75 gal/acre glyphosate, 0.25 gal/acre diquat, 0.25 gal/acre Aqua King Max, and 8 oz. Thoroughbred.

Aquatic vegetation surveys will be conducted annually in July or August to determine the species composition and the acreage of aquatic vegetation. This will provide a method to determine the success of the TGC stocking and determine if additional vegetation control measures are necessary.

Recommendations for 2013 will be presented to the City of Pineville following approval by LDWF Administration.

Type Map - 2012

